IOWA DEPARTMENT OF NATURAL RESOURCES

NEWS FROM THE UST SECTION

NOVEMBER, 2009

Owner/ Operator Training

The Environmental Protection Commission (EPC) approved Operator Training rules at their August 2009 meeting. Operator Training rules are the last part of the Federal Energy Policy Act of 2005 for the DNR to implement. The UST Section previously implemented the Energy Act's *Inspections*, *Delivery Prohibition* and *Secondary Containment* provisions in 2007.

Included in the Operator Training rules were amendments to piping in-line catastrophic leak detection—a requirement to install positive shutdown of submersible turbine pumps at unstaffed sites with pressurized delivery. This amendment was not included in the final rule, but allows for changes/ improvements for reconsideration by the EPC before December 31, 2009.

The purpose of the rules is to improve operations and maintenance at UST system facilities and ultimately improve compliance and groundwater protection through release prevention. The rules outline three classes of operators that must be trained and designated at all underground storage tank (UST) facilities: Class A, Class B, and Class C. Class A operators have primary responsibility to operate and maintain the UST system; Class B operators actually implement applicable UST regulatory requirements and standards in the field; and the Class C operator is an employee at the UST site (e.g., clerk) and is the first line of response to events indicating emergency conditions. Class C operators must know how to respond to spills, overfills and alarms when they occur. **Within six months after October 14, 2009 (effective date of operating training rules), written basic operating -instructions, emergency contact names and telephone numbers and basic procedures specific to the facility shall be provided to all**

Secondary Containment

The secondary containment guidelines of the Energy Policy Act require that all new UST systems and replacement tanks and piping have secondary containment (double wall, containment sumps and under-dispenser containment or UDCs) and use interstitial monitoring as the primary method of leak detection, if they are located within 1,000 feet of a community water supply system or potable drinking water well [Chapter 567--135.3(9)]. Because the definition of community water supply system includes transmission lines, almost every location in Iowa would be near a water supply system. Still, there are exception provisions to secondary containment provided in the rule [135.3(9)'i'].

Secondary containment requirements are the most significant change in UST technical requirements since the upgrade deadline of 1998. The ability to prevent releases at sites built since 2007, should greatly improve.

Secondary containment systems (tanks, piping, sumps and UDCs) must be liquid tight and inspected and tested every two years by an Iowa licensed UST professional. Testing and inspection forms are available on the UST Section website.

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www.iowadnr.gov/land/ust/index.html

Owner/Operator Training (Chapter 135) (continued)

Class C *continued on page 2*
(continued from page 1) **operators and readily available on site [135.4(7)'c'].** Class A, B and C operators must be trained before assuming responsibilities at a

facility.

These rules contain specific job duties, training requirements, and training deadlines applicable to each operator class. The rule was also amended to require Class A operators to notify the department of any change in ownership or operator status, and to notify new owners of their compliance responsibilities.

Designated operators must **complete training by December 31, 2011**, which gives marketers two years to train all designated operators. After December 31, 2011, a petroleum marketing facility must have designated A, B and C operators before it can operate.

Class A and B operators will be trained by approved online or third party training, and require an exam to demonstrate their understanding of the course material.

Class C operators may be trained by B operators with no exam required.

DNR has already begun reviewing owner/operator training courses.

DESIGNATED OPERATORS MUST **COMPLETE TRAINING BY DECEMBER 31, 2011**, WHICH GIVES MARKETERS TWO YEARS TO TRAIN ALL DESIGNATED OPERATORS.

Returning an UST System to Service

A checklist has been designed to guide owners and operators to safely bring their UST systems back into operation. This is needed due to temporarily closed sites returning to operation before proper testing was completed, insurance was obtained by the new owner/operator, and compliance items had been resolved.

The guidance and Return to Service forms are available on our website.

Please review the form and all supporting documents before the UST system can be returned to service.

Fuel Delivery Prohibition

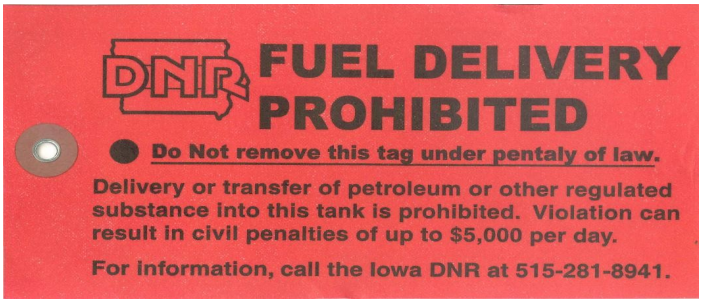
Sites with serious operation or maintenance violations such as no insurance, not conducting leak detection monitoring, not conducting a compliance inspection, leaking equipment not repaired, etc. may have a fuel delivery prohibition imposed on them.

A delivery prohibition would effectively prevent the site from receiving any transfers of product. Notice will be provided to the owner or operator either by verbal contact, fax or regular mail.

The owner/operator has a minimum of one business day to provide documentation that either the violation is inaccurate or that the requirements for reinstatement have been met.

The delivery prohibition process is found in Chapter 567—135.3(8). Sites with delivery prohibitions will be posted on the DNR's website so transporters may check their status before delivering product.

If a site is out of compliance, a red tag will be attached to the fill port of the tank, which contains specific language prohibiting the delivery or transfer of product.



Compliance Inspections

For most UST owners and operators, 2009 marks the second cycle of UST facility compliance inspections. If you haven't had your system inspected, a compliance inspection must be completed by December 31, 2009. A list of compliance inspectors is available on the UST Section's website.

A UST system installed since August 2007 needs an inspection within two years of installation but no sooner than 6 months after installation. Compliance inspections must be conducted every 2 years by an Iowa certified compliance inspector.

Reporting Releases

If an UST professional observes a suspected release (e.g., unexplained loss of product, slow flow of a mechanical leak detector, failed leak test results) he or she is required to report the release to the owner/operator.

The owner/operator must, in turn, report the release to the DNR within 24 hours or 6 hours if a hazardous condition exists.

The UST professional is also expected to investigate and recommend to the owner/operator how to correct the suspected release. Forms for release reporting are on the DNR's website: http://www.iowadnr.gov/land/ust/index.html. Owners may also report releases by phone, fax or e-mail as long as they are reported within the 24 or 6 hour period.

If an UST professional observes a **confirmed** release, he or she must notify the owner, and both the owner/operator and the UST professional are required to report the confirmed release to the DNR.

THE UST PROFESSIONAL MUST REPORT CONFIRMED RELEASES TO THE OWNER/OPERATOR UPON DISCOVERY AND TO THE DNR WITHIN 7 DAYS OF DISCOVERY.

UST Section Website

www.iowadnr.gov/land/ust/index.html

Licensed UST Removers

UST permanent closures in Iowa must now be supervised by an Iowa licensed remover. The purpose of licensing removers is to ensure safety when working around flammable and combustible materials and to safeguard the environment..

The DNR conducted its first UST remover course on October 9, 2009. Sixty-four people successfully completed the course and exam, and are in the process of applying for licenses.

The UST remover must report confirmed releases to the owner/operator upon discovery and to the DNR within 7 days of discovery. The UST professional is required to report using the DNR's release report form posted on the above website.

Certified groundwater professionals (CGPs) must now conduct or supervise the collection of soil and groundwater samples for permanent UST closure. The intent is to obtain reliable and consistent sample collection and to promote groundwater protection by those who are trained, licensed and experienced professionals.

A CGP would not necessarily need to be on site; they must, however, sign off on the report to certify sampling was conducted per regulations and standards. New notification of closure, permanent closure report, decommissioning (tank cleaning) forms are available on the UST Section website.

National Emissions Standards for Hazardous Air Pollutants (NESHAP)

NESHAP requirements will be enforced by DNR's Air Quality Bureau, but the UST Section, through its third party inspection program and field offices, will monitor the affected sites and their testing requirements.

Gasoline dispensing facilities (GDFs) are now required to control gasoline vapors based on the monthly throughput of the facility (gallons per month or gpm). There are three source categories of GDFs:

1. Less than 10,000 gpm (small),
2. Equal to or greater than 10,000 gpm (medium) and
3. Equal to or greater than 100,000 gpm (large).

Source categories are determined by a 30-day rolling average throughput. If at any point throughput exceeds medium or large source categories, GDFs must comply with the requirements for those categories. Iowa-licensed installers and installation inspectors will play an important role in helping their clients understand the NESHAP requirements as new Underground Storage Tank (UST) systems are installed and existing systems are retrofitted.

Complete Stage 1 vapor recovery systems are required on all new GDFs (installed after November 9, 2006) that meet or exceed the large GDF category. Dual point systems are required on GDFs installed after January 10, 2008. The deadline for installation of vapor recovery systems for new GDFs was September 23, 2008. That means any large, medium or small source facility built after November 9, 2006 must comply with the specific requirements now. Any proposed large source GDF must have a complete Stage 1 vapor recovery system (dual point) ready to go at start up.

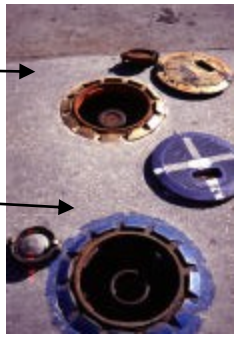
In addition, existing GDFs (constructed on or before November 9, 2006) that meet or exceed the large source category are required to have Stage 1 vapor recovery by January 10, 2011. Stage 1 vapor recovery returns the gasoline vapors emitted during the transfer of gasoline to the UST back to the transport truck instead of forcing the vapors out through the vent pipe.

Gasoline vapors contain benzene and volatile organic compounds (VOCs), which are harmful to the atmosphere and to human health.

Testing Stage 1 vapor recovery systems is conducted after backfilling or just before the vapor control system is put into operation. Test equipment must be third party evaluated. Testing is required on start up and every three years on Stage 1 vapor control systems. Owners and operators must maintain initial test results and every three-year pressure test results. Records must be maintained for five years.

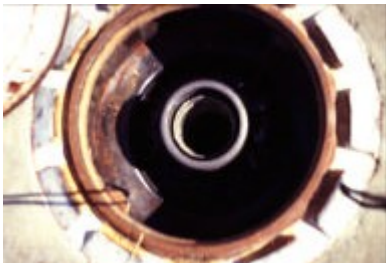
NESHAP requirements will be enforced by DNR's Air Quality Bureau, but the UST Section, through its third party inspection program and field offices, will monitor the affected sites and their testing requirements. UST registration and inspection forms have already been prepared and revised to reflect the new requirements.

Stage 1 Vapor Recovery Dual Point and Coaxial Systems



Dual Point Systems, shown above consist of two separate tank opening, one for delivery of the product and the other for the release of vapors back into he delivery tanker.

Coaxial systems (below) have only one tank opening. The opening is usually four inches in diameter with a three inch diameter product fill tube inserted into the opening. Fuel enters through the inner tube while vapors are displaced in the space between the inner



Iowa Awarded $2.6 Million Stimulus for Underground Petroleum Spills

The United States Congress passed the American Recovery and Reinvestment Act (ARRA) of 2009 which included $200 million for leaking underground storage tank (LUST) cleanups. The primary purpose of this money is to provide economic stimulus with a secondary benefit of providing funds for LUST cleanup activities.

The Environmental Protection Agency (EPA) distributed these funds to the states to deal with petroleum contamination from federally-regulated underground storage tank (UST) sites where the responsible parties are unknown, unwilling or unable to pay for cleanup activities or in cases of emergency.

Iowa received $2,643,000 to clean up LUST sites under ARRA. "This money lets us clean up polluted land and groundwater in some of Iowa's smaller communities and it reinforces local economies with jobs," says Elaine Douskey, UST Section Supervisor. "When these contaminated sites are cleaned up, they are more likely to be developed and reused. This funding is intended to put people to work, address pollution and invest in the future."

The DNR UST Section will administer the funds through a cooperative agreement with the EPA and by contracting with environmental consultants to do assessment and cleanup. Work at sites is expected to begin late this fall.

Petroleum released underground can contaminate groundwater, which is the primary source of drinking water for most Iowans. Based on a U.S. Geologic Survey report, nearly 80 percent of all Iowans depend on groundwater for their household water supplies. This resource is essential to life and well-being and its protection is one of the focal points of the DNR's Environmental Services Division.

"We are pleased to be among those states in Region 7 receiving this much needed funding to address some of these abandoned sites with polluted groundwater that may threaten public health," says Douskey. "Preventing tank leaks is the best approach to ensure safe drinking water, and through our work and in cooperation of tank owners and operators, the number of spills that occur each year is decreasing. But we must address the serious contamination that currently exists and this money helps."

"When these contaminated sites are cleaned up, they are more likely to be developed and reused. This funding is intended to put people to work, address pollution and invest in the future."

– Elaine Douskey, UST System Supervisor.